5.(Amended) The actuator, as claimed in claim 4, characterized by a position sensor (7) made with a resistor (10), normally of the linear type.

6.(Amended) The actuator, as claimed in claim 4, characterized by a position sensor (7) made with a capacitive group.

7.(Amended) The actuator, as claimed in claim 4, characterized by a position sensor (7) made with a group that measures the inductance of solenoid (1) upon the variation of the position of the ferromagnetic nucleus (2).

9.(Amended) The acturator, as claimed in claim 8, characterized by a rod (3) combined with a spring (8) capable of pushing the fereomagnetic nucleus (2) to its resting position.

15.(Amended) The actuator, as claimed in claim 14, characterized by flange type means (11) for its anchoring on the turbocharger (5).